

TABLE 1. LIST OF TECHNICAL, ADVISORY AND CITIZEN'S GROUP MEMBERS

Technical Group Members

Steve R. McNeal, Bureau of Water Pollution Control, Division of Health
 Kent Miner, Salt Lake City-County Health Department
 Marv Maxell, Assistant Director, Division of Health
 Ken Bousfield, Assistant Director, Public Water Supplies, Division of Health
 Kent P. Gray, Bureau of Solid & Hazardous Waste, Division of Health
 Steven D. Taylor, Kennecott, UCD Environmental Director
 Terry Vandell, Kennecott Environmental Affairs
 George Condrat, Dames & Moore Consultants
 Ric Jones, Dames & Moore Consultants
 Joe Pearson, Intera Technologies
 Ron Lantz, Intera Technologies

Advisory Group Members

Harry Gibbons, Director, Division of Environmental Health, Salt Lake City-County Health Department
 Ken Alkema, Director, Utah State Division of Health
 Robert A. Malone, Director, Kennecott Environmental Division

Other Agencies Involved (Informally)

Rob Walline, EPA Region VIII
 Calvin Clyde, Utah State University, Water Research Laboratory
 Tom Suchoski, State of Utah Natural Resources, Oil, Gas and Mining
 Gary E. Christenson, State of Utah Natural Resources, Utah Geological and Mineral Survey
 Galen Williams, South Jordan City (Bingham Engineering)
 Terry Bailey, City of Riverton
 Terry Way, Salt Lake County Flood Control and Water Quality

Representing

Name

West Jordan City	Betty G. Naylor
South Jordan	Richard Warne
Riverton	Terry Bailey
Herriman	J. Bryant Miller
Bluffdale	No designated representative
Copperton	No designated representative
County Commission	Bart Barker
Public Water Users	Robert B. Hilbert
Agriculture	Dale Bateman
Water Research Laboratory	Dr. Calvin Clyde
AWWA	Dr. Michael Miner

TABLE 2

LIST OF WATER QUALITY CONSTITUENTS TO BE ANALYZED

Parameter
pH ⁽²⁾
Specific conductance ⁽²⁾
Total dissolved solids
Total suspended solids
Aluminum
Arsenic
Barium
Cadmium
Chromium
Copper
Iron
Lead
Manganese
Mercury
Molybdenum
Calcium
Fluoride
Magnesium
Potassium
Sodium
Carbonate ⁽²⁾
Bicarbonate ⁽²⁾
Chloride
Nitrate (as N)
Sulfate
Alkalinity
Zinc
Selenium
Silver
Coliform bacteria ⁽³⁾
Radium-226 ⁽⁵⁾
Gross Alpha ⁽⁵⁾
Gross Beta ⁽⁵⁾
Endrin ⁽⁴⁾
Lindane ⁽⁴⁾
Methoxychlor ⁽⁴⁾
Toxaphene ⁽⁴⁾
2,4-D ⁽⁴⁾
2,4,5-TP Silvex ⁽⁴⁾
Phenols (Phenolics, total Recoverable) ⁽⁴⁾
Orthophosphate as P
Silica as SiO ₂
Nickel
Hardness

Parameter

Acidity
Temperature °C
Total Organic Carbon (TOC)⁽³⁾
Total Organic Halogen (TOX)⁽⁴⁾

Footnotes:

- (1) All units in mg/l unless otherwise noted.
- (2) These parameters will be measured in the field.
- (3) Coliform shall, after Round 1 sampling, only be monitored at sites: S-200, 354, 352, 21B; K-84, 100, 201; P-207a, 207b, 208a, 208b; W-41a, 189, 300, 301, 309, 310, 311, 312, 329, 333, 348, 361 (As agreed to by the Technical and Advisory Groups since Round 1 sampling showed insignificant concentrations and the fact that Kennecott's contaminants do not include this parameter).
- (4) Analysis for organics, phenols, TOC and TOX were deleted after Round 1 analytical result evaluations by the Technical and Advisory Groups because of insignificant concentrations, and the fact that Kennecott's contaminants do not include these parameters.
- (5) Radionuclides will be analyzed by CEP Laboratory, Santa Fe, New Mexico, which is EPA certified for such analysis. As agreed to by the Technical and Advisory Groups, radionuclides need only be analyzed at the following 38 sample sites: W31, W131A, W136, W151, W154, W164, W174, W176, W185, W189, W301, W310, W325, W326, W327, W328, K70, K105, K109, P192B, P198, P199, P207A, P213B,C, P239, S1, S21, S53, S200, S236, S237, S314, S317, S318, S320, S321, S354.

Kennecott has added the following sample sites to monitor for radionuclides: W361, W125, W311, W322, K201, P240A,B, P241A,B, P234, S324, S356, S352.

TABLE 3. LIST OF SAMPLE SITES TO MONITOR

<u>Private Well Sites</u>		<u>Well Use(s)</u> ⁽³⁾
	W22 J. Dansie ⁽⁴⁾	D, Ir
	W27 Conoco Station ⁽⁵⁾	A
(2)	W31 Copperton ⁽⁴⁾	D
(1)	W41A Bastian	D, Ir
	W107 Westland Hills #1?	Ir, D, St
	W108 Westland Hills #2?	Ir, D
(2)	W125 Nicoletti	K
(2)	W131A C. Fassio ⁽⁴⁾	D, St
	W131B C. Fassio	D, St
	W134 O. Madsen ⁽⁴⁾	D
(2)	W136 Garamedi (Riverton City Well) ⁽⁴⁾	D
	W141 K. Motoki ⁽⁴⁾	D
	W142 Bills	D, Ir
	W144 M. Jensen	D
	W146 D. Boulden ⁽⁴⁾	D
(2)	W151 P. Schmidt ⁽⁴⁾	D, Ir
	W152 O. J. Wilkinson ⁽⁴⁾	D
	W153 F. E. Smith	D
(2)	W154 P. Groves ⁽⁴⁾	D
	W155 W. Davis	A
	W162 Leo Palmer	D
(2)	W164 Garrett	D
	W167 Mulch Plant	D
	W173 Hamilton Feed & Livestock	D, Ir
(2)	W174 Gardiner	D
(2)	W176 Peterson ⁽⁴⁾	D
	W178 Gardner ⁽⁴⁾	St
	W180 Fur Breeders ⁽⁴⁾	D, St
	W182 Vance Beakstead ⁽⁴⁾	D, St
(2)	W185 Herriman City ⁽⁴⁾	D, Ir
(1,2)	W189 Interstate Brick ⁽⁵⁾	D, In
(1)	W300 Fraughton ⁽⁴⁾	D, Ir, St
(1,2)	W301 Anderson ⁽⁴⁾	Ir, D, St
	W302 Naylor ⁽⁴⁾ ⁽⁵⁾	Ir
	W304 Farnsworth ⁽⁴⁾	Ir, D, St
	W305 Tac	D, Ir
	W306 Gigi ⁽⁴⁾	Ir
	W308 Tolbert	D
(1,6)	W309 L. R. Bateman ⁽⁴⁾	D
(1,2,6)	W310 Bowles ⁽⁴⁾	D
(1,2,6)	W311 Schouton ⁽⁴⁾	D
(1,6)	W312 Tidwell ⁽⁴⁾	D
(2)	W322 Brent Dansie	D
	W323 L. Wall ⁽⁴⁾	D, Ir, St
(2)	W325 J. Holland ⁽⁴⁾	D
(2)	W326 Hamilton (Riverton City Well) ⁽⁴⁾	D
(2)	W327 Maynard (Riverton City Well) ⁽⁴⁾	D
(2)	W328 Gedge (Riverton City Well) ⁽⁴⁾	D

Private Well SitesWell Use(s)⁽³⁾

(1)	W329	A. Jensen (Webb)	D
	W331	Jay N. Butterfield ⁽⁴⁾	D
	W332	Paul Solmosen	D
(1)	W333	Thad Otley ⁽⁴⁾	D
	W334	Bob Goldsmith ⁽⁴⁾	D
	W335	Dick Kunz	D
	W336	Gary Larsen	D
	W337	Bill Ham ⁽⁵⁾	D
	W338	Flossie Wells ⁽⁵⁾	D
	W339	R. K. Petersen ⁽⁴⁾	D
	W340	Harmon	D, Ir
	W341	Murray Fair Grounds ⁽⁴⁾	D
	W342	Murray Fair Grounds ⁽⁴⁾	D
	W345	D. H. Greenwood	D
	W346	Pine Hollow Tree Farm	D
	W347	D. H. Holtkamp	D
(1)	W348	Blaine Christensen	D
	W359	Hercules	D
	W360	Kelly Schultz	D
(1,2)	W361	West Jordan City Well ⁽⁵⁾	D

Footnotes for W wells in addition to the comprehensive analysis in Table 4-1:

- (1) Sample for coliform
- (2) Sample for radionuclides (All new monitor wells will be sampled at least once for radionuclides)
- (3) Well use codes, based on actual use or permitted use as per the Utah State Engineer's well log records. The first use code designates the key or current use for the wells.
 - Ir = Irrigation
 - D = Domestic
 - K = Kennecott Monitor Well
 - In = Industrial
 - A = Abandoned, not used
 - St = Stock Watering
- (4) Well owners who have requested and received water quality data results on their wells.
- (5) Will be sampled 3 times/yr., twice only for critical contaminant parameters (i.e. the field parameters, TDS, SO₄, Cu, Fe, Mn, Zn, Pb).
- (6) These are generally sampled monthly as evaporation pond monitor wells.

K & P Well Sites⁽⁶⁾

- K26
- K60
- (2) K70
- K72⁽⁵⁾
- (1) K84
- (1) K100
- (2) K105
- K106
- (2) K109
- K120

K & P Well Sites⁽⁶⁾

- (1,2) K201
- (5) K349
- P190A
- P190B
- P191A
- P191B
- P192A
- (2) P192B
- P193A
- P193B
- P194A
- P194B
- P196A
- P197A
- P197B
- (2) P198
- (2) P199
- P202C
- (1,2) P207A
- (1) P207B
- (1) P208A
- (1) P208B
- P209B
- P210B
- P211A
- P211B
- P212A
- P212B
- (2) P213B
- (2) P213C
- P214A
- P214B
- P220
- P225
- P228
- P231
- (2) P234
- (2) P239 replacement near old K67R
- (2) P240A replacement near old P198A⁽⁵⁾
- (2) P240B replacement near old P198B⁽⁵⁾
- (2) P241A replacement near old P202B⁽⁵⁾
- (2) P241B replacement near old P202C⁽⁵⁾

Footnotes in addition to the comprehensive analysis in Table 4-1:

- (1) Sample for coliform
- (2) Sample for radionuclides (All new monitor wells will be sampled at least once for radionuclides)
- (5) These sites shall be sampled three times/year, twice only for the critical contaminant parameters (i.e. the field parameters, TDS, SO₄, Cu, Fe, Mn, Zn, Pb; to evaluate seasonal fluctuations, if any).
- (6) Additional new wells will be sampled as these new monitor wells are constructed.

S Sites

- (2) S1 J. River 9000 S.
- S2 J. River 12300 S. (5)
- (2) S21 Butt. Creek above Lark Mine (5)
- S21A Bingham Mine Portal Drain
- (1) S21B Butt. Creek and Bingham Mine Portal
- S22A Lark Town Spring
- S22B Butt. Creek Spring
- S33 Provo Reservoir Canal 16150 S.
- S33A Provo Reservoir Canal 9000 S.
- S38 J. River 10,600 S.
- S40 Old Scout Camp Spring
- (2) S53 U.S. Mine Butt. Creek Portal
- S54 J. River 6400 S.
- S56 N. Bingham Creek
- S57 J. River 8000 S.
- Sl66 J. River 14600 S. (5)
- (1,2) S200 Bingham Reservoir (5)
- (2) S236 Leach Fluid
- (2) S237 Bingham Pit Waters
- S313 J. River 4800 S.
- (2) S314 N. Jordan Canal
- S315 Butt. & Midas Creek
- S316 Crystal Springs
- (2) S317 S. Kennecott Mine Dumps Drainage
- (2) S318 Barney's Springs
- S319 Maple Springs
- (2) S320 Dry Fork Creek
- (2) S321 Midas Creek
- (2) S324 6400 W. 14000 S. Rose Creek
- S330 J. River 9400 S.
- S343 1370 W. 7300 S. (Spring)
- S344 7560 S. 1200 W. (Spring)
- S350 Evaporation Ponds (3, 4, 5) (5)
- S351 40th West Pond
- (1,2) S352 S. Evaporation Ponds (5)
- S353 Small Reservoir
- (1,2) S354 Treated Mined Stream = old S238 designation
- S355 Nose & Mine Combo. Stream (untreated)
- (2) S356 80 acre pond
- S357 Jordan River eff.
- S358 Cemetery Pond

Footnotes in addition to the comprehensive analysis in Table 4-1:

- (1) Sample for coliform
- (2) Sample for radionuclides
- (5) Will be sampled 3 times/year; once for comprehensive analysis twice for key contaminants only